



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/765,841	01/29/2004	Kheng Chiong Tay	07044.0003	2330
22852	7590	06/01/2005	EXAMINER	
FINNEGAN, HENDERSON, FARABOW, GARRETT & DUNNER LLP 901 NEW YORK AVENUE, NW WASHINGTON, DC 20001-4413			WARREN, MATTHEW E	
			ART UNIT	PAPER NUMBER
			2815	

DATE MAILED: 06/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/765,841

Applicant(s)

TAY ET AL.

Examiner

Matthew E. Warren

Art Unit

2815

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 17 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1 and 10-14 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 10-14 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action is in response to the Amendment filed on March 17, 2005.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, 10, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arndt et al. (US 6,459,130 B1) in view of Hori (US 6,469,398 B1).

In re claim 1, Arndt et al. shows (fig. 1a-1c and 3) optoelectronic component based on a surface mount technology, said optoelectronic component comprising: an electrically conductive frame (17) to form a base for an assembly; at least an optoelectronic chip (1) mounted on the base; and an electrical connection (16) between the optoelectronic chip and the electrically conductive frame (17) by a wiring means (16); soldering terminals (11 and 12) which are part of the electrically conductive frame and are exposed at bottom and side portions of the component; wherein the said base material is encapsulated with a hard transparent or translucent resin material (3) to enable optical radiation to be transmitted or received via the optoelectronic component (col. 4, lines 14-20). Arndt does not show that the soldering terminals (11 and 12) do not extend beyond an outline of the encapsulation material because the terminals are bent inward toward the encapsulation material. However, Hori shows (fig. 1A-AC) a

semiconductor package comprising soldering terminals (11 and 12) that do not extend beyond an outline of the encapsulation material (5). With this configuration, it is possible to reduce the package size (col. 8, lines 1-12). Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the solder terminals of Arndt by keeping them within the outlines of the encapsulation material as taught by Hori to reduce the package size.

In re claim 10, Arndt discloses that the electrically conductive material is metal (col. 2, lines 44-67).

In re claims 13, Arndt shows (fig. 1c) a cavity (4) is formed in the electrically conductive frame (17) and used to attach the optoelectronic chip within said cavity and serve inherently as a reflector, since the materials and structure are the same as the instant invention.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Arndt et al. (US 6,459,130 B1) in view of Hori (US 6,469,398 B1) as applied to claim 1 above, and further in view of Hurt et al. (US Pub. 2003/0007749 A1).

In re claims 11 and 12, Arndt and Hori show all of the elements of the claims except the lens or the multiple lens structure to be part of the encapsulation material. Hurt et al. shows (fig. 5) that a lens structure is used in an optoelectronic package to launch radiation into an external fiber or focus received light into the die [0042 and 0043]. The reference does not specifically use multiple lens however multiple lens may be required for multiple devices such as components 3 and 4 shown in fig. 5. It would

Art Unit: 2815

have been obvious to one of ordinary skill in the art to use three, four, etc., lenses to focus light into multiple devices. It has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *In re Harza*, 274 F.2d 669, 124 USPQ 378 (CCPA 1960). See also MPEP 2144.04 VI. (B).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the package of Arndt and Hori by adding a lens as taught by Hurt to focus light into a optoelectronic device.

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Arndt et al. (US 6,459,130 B1) in view of Hori (US 6,469,398 B1) as applied to claim 1 above, and further in view of Kwon et al. (US 6,518,660 B2).

In re claim 14, Arndt and Hori show all of the elements of the claims except the grooves and wings in the base material to enhance anchorage which Kwon et al. discloses (col. 3, lines 60-65). Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the package of Arndt and Hori by forming grooves and wings in a base layer as taught by Kwon to enhance adhesion of subsequently adhered devices and components.

Response to Arguments

Applicant's arguments with respect to claim 1 has been considered but are moot in view of the new ground(s) of rejection.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

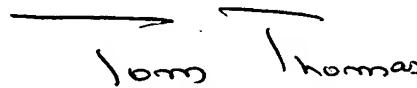
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Matthew E. Warren whose telephone number is (571) 272-1737. The examiner can normally be reached on Mon-Thur and alternating Fri 9:00-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tom Thomas can be reached on (571) 272-1664. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

MEW

May 27, 2005

A handwritten signature in black ink that reads "Tom Thomas". The signature is written in a cursive style with a horizontal line above the first name.

TOM THOMAS
SUPERVISORY PATENT EXAMINER